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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,276	07/23/2003	Richard E. Perego	RAMB-01049US1	8412
28554	7590	02/18/2005	EXAMINER	
VIERRA MAGEN MARCUS HARMON & DENIRO LLP 685 MARKET STREET, SUITE 540 SAN FRANCISCO, CA 94105			VERBRUGGE, KEVIN	
			ART UNIT	PAPER NUMBER
			2188	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,276	PEREGO ET AL.	
	Examiner	Art Unit	
	Kevin Verbrugge	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 December 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 25-71 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 25-71 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/10, 12/23, 1/26</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/10/04 has been entered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 25-71 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-49 of U.S. Patent No.

6,502,161. Although the conflicting claims are not identical, they are not patentably distinct from each other because the integrated circuit master device of the instant application is present in the claims of the patent as a memory controller device. It is obvious to claim individual limitations of a patented claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 25, 26, 27, 29, 30, 33, 44, 45, and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,185,654 to Van Doren.

Regarding claim 25, Van Doren shows the claimed integrated circuit master device as data path controller QSD 580 in Figs. 5, 17, and 20. Specifically, he shows in Fig. 20 the claimed first point-to-point link port as the port where data signal 1750 exits QSD 580. This port clearly is used to communicate with memory write buffer 2010 on memory module 1730. Van Doren shows the claimed second point-to-point link port as the port where data signal 1751 exits QSD 580. This port is clearly used to

communicate with memory write buffer 2011 on memory module 1731. Relevant discussion of Fig. 20 begins at column 20, line 37.

Regarding claim 26, QSD 580 provides address, data, and control information to memory module 1730 as claimed.

Regarding claim 27, QSD 580 receives data from memory module 1730 via the first port as shown in Fig. 17.

Regarding claims 29, 33, and 58, Van Doren does not show the port contents, however, it is clear that the claimed transmitter circuitry and receiver circuitry are inherent in his port since his port transmits data and receives data as claimed.

Regarding claim 30, since Van Doren's device transmits and receives data on the same lines, it is true that his device multiplexes data as claimed.

Regarding claim 44, since Van Doren's QSD 580 processes data signals, it can be said to be a processor device.

Regarding claim 45, Van Doren's data path controller QSD 580 is a controller device.

Claims 25, 27, 29, 30, 33, 44, 45, and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,526,469 to Drehmel et al., hereinafter simply Drehmel.

Regarding claim 25, Drehmel shows the claimed integrated circuit master device as the DSW 0 chip of data switch unit 211 (which Drehmel discloses has two chips, DSW 0 and DSW 1; see Fig. 6, column 6, lines 27-30, and column 10, lines 33-67).

This integrated circuit master device contains the claimed first point-to-point link port as the port where point-to-point remote data bus 602A exits DSW 0. It contains the claimed second point-to-point link port as the port where point-to-point remote data bus 602C exits DSW 0. These two ports are used to communicate with the buffer devices on memory subsystem 0 and memory subsystem 1, as claimed. Drehmel shows the claimed buffer devices as memory address interface (MAI) unit 220 and memory data interface (MDI) unit 221 in Fig. 2B.

Regarding claim 27, DSW 0 receives data from memory subsystem 0 via the first port as claimed.

Regarding claims 29, 33, and 58, Drehmel does not show the port contents, however, it is clear that the claimed transmitter circuitry and receiver circuitry are inherent in his port since his port transmits data and receives data as claimed.

Regarding claim 30, since Drehmel's device transmits and receives data on the same lines, it is true that his device multiplexes data as claimed.

Regarding claim 44, since Drehmel's DSW 0 processes data signals, it can be said to be a processor device.

Regarding claim 45, since Drehmel's DSW 0 controls data signals, it can be said to be a controller device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,185,654 to Van Doren.

Van Doren does not teach that his data transmission and reception happen simultaneously, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to include additional signal lines to allow this to speed up data transaction time. The design choice of how many signal lines to include is a matter decided by the designer when weighing the additional speed achieved by adding lines against the added cost in wiring, etc. Fewer lines take up less space but require multiplexing since transmissions and receptions share the same lines at different times. More lines take up more space but allow simultaneous transmissions and receptions.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,526,469 to Drehmel et al., hereinafter simply Drehmel.

Drehmel does not teach that his data transmission and reception happen simultaneously, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to include additional signal lines to allow this to speed up data transaction time. The design choice of how many signal lines to include is a matter decided by the designer when weighing the additional speed achieved by adding lines against the added cost in wiring, etc. Fewer lines take up less space but require multiplexing since transmissions and receptions share the same lines at different times. More lines take up more space but allow simultaneous transmissions and receptions.

Allowable Subject Matter

Claims 46-57 and 63-71 are allowable except for the double patenting rejection.

Claims 28, 32, 34-43, and 59-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if a terminal disclaimer is filed to overcome the double patenting rejection.

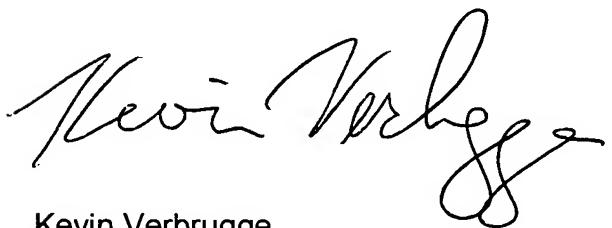
Conclusion

Any inquiry concerning a communication from the Examiner should be directed to the Examiner by phone at (571) 272-4214.

Any response to this action should be labeled appropriately (including serial number, Art Unit 2188, and type of response) and mailed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, hand-carried or delivered to the Customer Service Window at Randolph Building, 401 Dulany Street, Alexandria, VA 22313, or faxed to (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

A handwritten signature in black ink, appearing to read "Kevin Verbrugge". The signature is fluid and cursive, with a large, stylized "V" in the middle.

Kevin Verbrugge
Primary Examiner
Art Unit 2188